

WHAT IS CLAIMED IS:

1. A focus adjustment apparatus comprising:
  - a color component signal forming circuit for forming a plurality of color component signals corresponding to predetermined different color components of object light received through an optical system; and
    - a focus adjustment signal forming circuit for forming a signal for focus adjustment on the basis of a signal formed by changing a ratio of the plurality of color component signals formed by said color component signal forming circuit.
2. The apparatus according to claim 1, wherein the ratio of the plurality of color component signals includes a case wherein a ratio of at least one color component signal is set to zero.
3. The apparatus according to claim 1, wherein said focus adjustment signal forming circuit forms the signal for focus adjustment on the basis of a signal formed by synthesizing the plurality of color component signals in accordance with the ratio.
4. The apparatus according to 1, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals on the basis of chromatic aberration information of the optical system.

5. The apparatus according to claim 4, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals, including chromatic aberration information of an auxiliary optical system used together with the optical system.

6. The apparatus according to claim 1, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals on the basis of chromatic aberration information corresponding to a focal length of the optical system.

7. The apparatus according to claim 6, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals, including chromatic aberration information of an auxiliary optical system used together with the optical system.

8. The apparatus according to claim 1, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals on the basis of chromatic aberration information corresponding to an opening degree of an aperture of the optical system.

9. The apparatus according to claim 8, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals,

including chromatic aberration information of an auxiliary optical system used together with the optical system.

10. The apparatus according to claim 1, wherein said  
5 focus adjustment signal forming circuit changes the ratio of the plurality of color component signals on the basis of chromatic aberration information corresponding to a focal length of the optical system and an opening degree of an aperture.

10 11. The apparatus according to claim 10 wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals, including chromatic aberration information of an auxiliary optical system used together with the optical system.

15 12. The apparatus according to claim 1, wherein said focus adjustment signal forming circuit changes the ratio of the plurality of color component signals on the basis of chromatic aberration information of an auxiliary optical system used together with the optical system.

20 13. The apparatus according to claim 5, wherein the auxiliary optical system increases the focal length of the optical system.

25 14. The apparatus according to claim 7, wherein the auxiliary optical system increases the focal length of

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the optical system.

15. The apparatus according to claim 9, wherein the auxiliary optical system increases the focal length of the optical system.

5 16. The apparatus according to claim 11, wherein the auxiliary optical system increases the focal length of the optical system.

17. The apparatus according to claim 12, wherein the auxiliary optical system increases the focal length of  
10 the optical system.

18. The apparatus according to claim 5, wherein the auxiliary optical system decreases the focal length of the optical system.

19. The apparatus according to claim 7 wherein the auxiliary optical system decreases the focal length of  
15 the optical system.

20. The apparatus according to claim 9, wherein the auxiliary optical system decreases the focal length of the optical system.

21. The apparatus according to claim 11, wherein the auxiliary optical system decreases the focal length of  
20 the optical system.

22. The apparatus according to claim 12, wherein the auxiliary optical system decreases the focal length of  
25 the optical system.

23. The apparatus according to claim 5, wherein the auxiliary optical system increases a focusable object distance of the optical system to a closeup side.

24. The apparatus according to claim 7, wherein the auxiliary optical system increases a focusable object distance of the optical system to a closeup side.

25. The apparatus according to claim 9, wherein the auxiliary optical system increases a focusable object distance of the optical system to a closeup side.

10 26. The apparatus according to claim 11, wherein the auxiliary optical system increases a focusable object distance of the optical system to a closeup side.

27. The apparatus according to claim 12, wherein the auxiliary optical system increases a focusable object distance of the optical system to a closeup side.

15 28. The apparatus according to claim 4, characterized by further comprising a storage unit for storing the chromatic aberration information.

29. The apparatus according to claim 28, wherein

20 said storage unit is provided in the optical system,

25           said focus adjustment signal forming circuit is provided in an image sensing apparatus main body to which the optical system is attached, and

          said apparatus further comprises a transmission section for transmitting the chromatic aberration

information stored in said storage unit from the optical system to the image sensing apparatus main body.

30. The apparatus according to claim 1, wherein said apparatus further comprises an image sensing 5 section for receiving the object light received through the optical system and converting the object light into an image signal for image sensing, and

10 said color component signal forming circuit forms the plurality of color component signals on the basis of the image signal from said image sensing section.

31. The apparatus according to claim 1, wherein the plurality of color component signals include at least two of a red component signal, a green component signal, and a blue component signal.

15 32. The apparatus according to claim 1, wherein one of the plurality of color component signals includes a green component signal, and

20 said focus adjustment signal forming circuit changes the ratio of the plurality of signals mainly in consideration of the green component signal.

33. The apparatus according to claim 1, further comprising a detector for detecting focal length information of the optical system from a moving position of the optical system.

25 34. The apparatus according to claim 1, wherein said focus adjustment apparatus is provided in the optical

system.

35. The apparatus according to claim 1, wherein said focus adjustment apparatus is provided in the image sensing apparatus main body to which the optical system  
5 is attached.

36. The apparatus according to claim 1, wherein said focus adjustment apparatus is provided in an image sensing system comprising the optical system and the image sensing apparatus main body to which the optical  
10 system is attached.

37. A focus adjustment method comprising the steps of:

15 forming a plurality of color component signals corresponding to predetermined different color components of object light received through an optical system; and

forming a signal for focus adjustment on the basis of a signal formed by changing a ratio of the plurality of color component signals formed.

20 38. A medium for supplying a focus adjustment control program, the control program comprising:

25 forming a plurality of color component signals corresponding to predetermined different color components of object light received through an optical system; and

forming a signal for focus adjustment on the

basis of a signal formed by changing a ratio of the plurality of color component signals formed.

39. The medium according to claim 38, wherein said medium comprises a storage medium.